

PROFESSIONAL SHORT COURSE  
Clemson University  
Forest Problem for Melvin Anhold

The problem selected is, "The George Washington and Jefferson National Forests are presently studying the feasibility of 365-mile bikeway traversing the western mountains of Virginia. I propose as my problem the cooperation and coordination with State Recreation Planners in the area of information and knowledge exchange dealing with sociological needs of the bikeway user. If possible, identified needs will be incorporated in the final draft proposals submitted to the Regional Forester and Chief for approval. At a minimum, the social needs assessment will be included as appendix material."

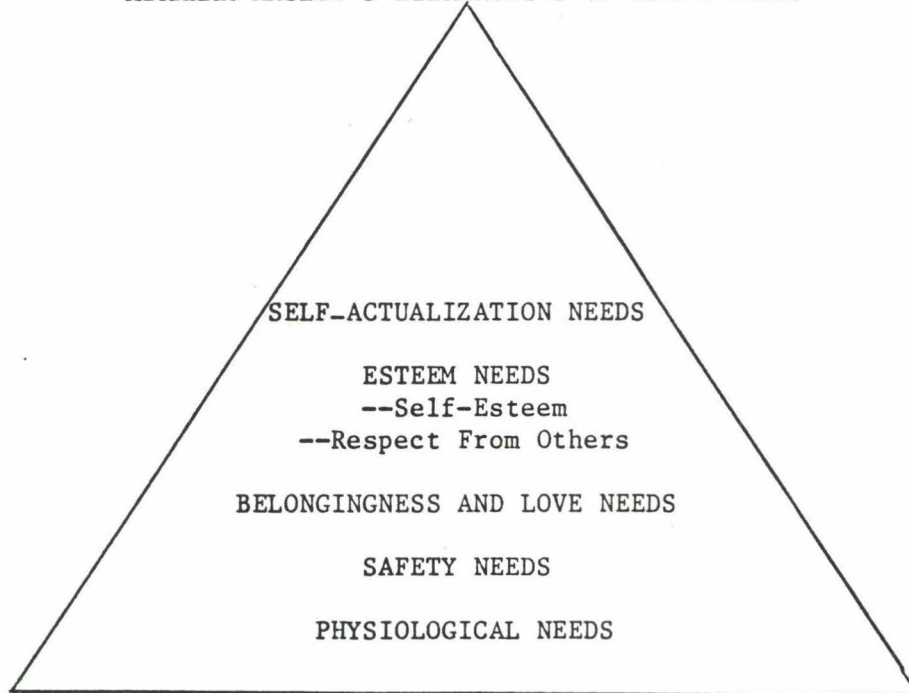
A generalized version of the bikeway proposal has gone to the Chief for consideration. Consideration from the standpoint that the Forest wishes to know if the project is feasible and acceptable at higher levels before additional time and resources are spent in preparing a detailed bikeway analysis.

My contact with State recreation planners is limited to one occasion. The reason being that both the Jefferson and George Washington Forests agreed not to publicize the bikeway proposal for fear that State, local, and public pressures may force the Chief into responding to a project that is not economically and socially feasible. The one contact was disastrous. My questions concerning sociological needs of bicyclists brought blank stares and then a laundry list of facility-type items that are needed to construct, protect, and maintain an existing bikeway; such as, bikeway trails need to be 4-6 feet in width and constructed of bituminous material, etc. Researching existing material and magazines such as, A Bikeway Criteria Digest, and Bicycle Forum again lead to a detailed description of how a facility is built and maintained. As for Bicycle Forum, it contains articles pertaining to bicycle safety, general techniques of route mapping, and ads for expensive bicycles and accessories.

After many false starts, I decided to research Abraham Maslow's concept of hierarchies of human needs and especially the opportunity to self-actualization. My theory being that if the bikeway itself satisfies a portion of the psychological and safety needs, then the user may achieve self-actualization in certain areas. Identifying these areas of self-actualization along the bikeway trail relates back to my original goal.

Abraham Maslow received his PhD in 1934 from the University of Wisconsin and passed away in 1973. Much of his early work was done with primates determining the dominance and subordination characteristics as they relate to varying situations. Maslow's work along with the work of many others developed the triangle of human needs with five definite levels.

# ABRAHAM MASLOW'S HIERARCHIES OF HUMAN NEEDS



THE EXTERNAL ENVIRONMENT  
PRECONDITIONS FOR NEED SATISFACTION  
FREEDOM, JUSTICE, ORDERLINESS  
CHALLENGE (SIMULATION)

When pressed for a definition of self-actualization, Dr. Maslow said "What a man can be, he must be." This need we may call self-actualization. This tendency might be phrased as a desire to become more and more what one is, to become everything that one is capable of becoming.

In the book, "Dominance, Self-esteem, Self-actualization: Germinal Papers of A. H. Maslow," by Richard J. Lowry, Maslow felt that select people continually self-actualated. The first clinical definition on which subjects were chosen or rejected for the self-actualization study were that the subject be absent of neurosis, psychopathic personality, psychosis, or strong tendencies in these directions. Finding subjects to fit this criteria was difficult. Three thousand college students were screened, but yielded only one immediate usable subject and a dozen or so possible future subjects.

Maslow discusses the degrees of relative satisfaction in the following statement: "If one need is satisfied, then another emerges." Maslow further went on to say that, "This statement might give the false impression that a need must be satisfied 100 percent before the next need emerges. In actual fact, most

normal members of our society are partially satisfied in all their basic needs and partially unsatisfied in all their basic needs at the same time. A more realistic description of the hierarchy would be in terms of decreasing percentages of satisfaction as we go up the hierarchy of prepotency. For example, if arbitrary figures are assigned for the sake of illustration, it is as if the average citizen is satisfied perhaps 85 percent in his physiological needs, 70 percent in his safety needs, 50 percent in his love needs, 40 percent in his self-esteem needs, and 10 percent in his self-actualization needs." It is this thought that is portrayed by instructors who attempt to explain Maslow's hierarchy of human needs. This percentage allocation allows an individual to self-actuate at different periods of his existence.

The direction the practical problem now takes is to discuss each of the human needs as they are related to the proposed bikeway, with emphasis being placed on opportunities for self-actualization. Again, the human needs are as follows:

1. Physiological needs
2. Safety needs
3. Belongingness and love needs
4. Esteem needs
5. Self-actualization needs

Dr. Thomas Heberlien in his presentation September 24, 1979, to Professional Short Course students indicated that visitor satisfaction was a poor indicator of social carrying capacity in recreation settings. Dr. Heberlien indicated that visitors generally achieve pleasant experiences unless their experience is mismatched with their expectations; such as, expecting a primitive experience but receive a developed site experience. I therefore suggest that the following writeup be included in recreational proposals that addresses the satisfaction of human needs achieved at each and every project location including the possible opportunities for self-actualization.



## GENERAL DESCRIPTION

If an overnight trip is anticipated along the bikeway, be sure to stop at designated developed or primitive areas where toilets, water, and fire rings are provided for visitor use. Not all water sources are considered safe, therefore, carry an ample supply of water. Boil or treat stream water. Storms, especially at the higher elevations, are frequent in the mountains. Your equipment should include a poncho and light weight waterproof tent.

The bikeway has been designed and constructed with the safety of the user in mind. Bituminous paving used in trail construction allows a smooth and safe ride. Widths vary from 6-8 feet for ease of passing, and curves are banked and where possible grades are held to a minimum to control downhill speeds. Should your bicycle be damaged, repair shops in nearby towns are indicated on the route map.

The bikeway is designed for family enjoyment. Youngsters, accompanied by their parents, may safely participate in this outing whether for one day or a full week. Family groups traveling together will find the evening hours especially rewarding when they all crowd around the campfire, singing songs, and roasting marshmallows.

Bikeway patches are available to individuals completing the total trail, at nominal cost from Forest Service employees at the Mount Rogers and Trout Pond ending points, or upon request from the Supervisor's Office, George Washington or Jefferson National Forest. Patches are dated by years so that individuals may acquire and display more than one bikeway patch.

The bikeway route travels from the high Virginia mountains to the rural valley setting offering different panoramic views to the rider. Photographing meadow wildflowers, breathtaking vistas, or a serene farmstead is but one of the opportunities for individual creativity. The bikeway may be traveled by groups or individuals but certain sections offer opportunities for peaceful solitude. Individuals may achieve pleasure and even ecstasy in the beautiful sunsets, the breathtaking loveliness of a field full of wildflowers, and the total spectrum of nature and its wonders.

GEORGE WASHINGTON BIKEWAY

Trail Section North to South	Length	Difficulty	Elevation	Camp Facilities	Bicycle Repair	Scenery	Vistas
	0						
Wardensville Route 59	20.8 miles	Easy	1,020-2,559	Trout Pond C.G.	Wardensville	Rural	0
Orkney Springs	28.5 miles	Easy	2,559-1,800	Primitive or Hostel	Orkney Springs	Mountain	6
Fulks Run	14.6 miles	Easy	1,800-1,200	Primitive	Fulks Run	Mountain	2
Route 33	22.9 miles	Difficult	1,200-3,540	Skidmore Park	None	Mountain	5
FS Route 96	34.7 miles	Moderate	2,050-2,979	Developed Todd Lake C.G.	None	Mountain	7
Route 600 Deerfield	17.9 miles	Easy	2,080-1,760	Primitive or Hostel	Deerfield	Rural	2
Route 39 Millboro Springs	25.2 miles	Easy	1,760-1,340	Primitive or Hostel	Millboro Springs	Rural	3
Smith Creek Rd.	17.2 miles	Easy	1,340-1,650	Primitive	None	Mountain	4
Eagle Rock	26.3 miles	Easy	1,650-933	Primitive or Hostel	Clifton Forge	Rural	3

APPLICATION OF MASLOW'S LAW TO RECREATION MANAGEMENT  
MELVIN L. ANHOLD

Abstract. Abraham Maslow developed the concept of a hierarchy of human needs. These needs range from physiological and safety needs to self-actualization needs. Self-actualization is a desire to become more and more what one is and to become everything that one is capable of becoming. Currently, Recreation facilities, programs, and brochures are not designed with any recognition of Maslow's work.

The George Washington and Jefferson National Forests are presently studying the feasibility of a 365-mile bikeway traversing the western mountains of Virginia. The problem discussed in this paper is to prepare brochures which provide information and knowledge dealing with the sociological needs of bikeway users. These concepts would be incorporated in the final plans submitted to the Regional Forester and Chief. If this project proves acceptable and is well received, then Maslow's concepts can be applied to other Forest Service Recreation brochures..

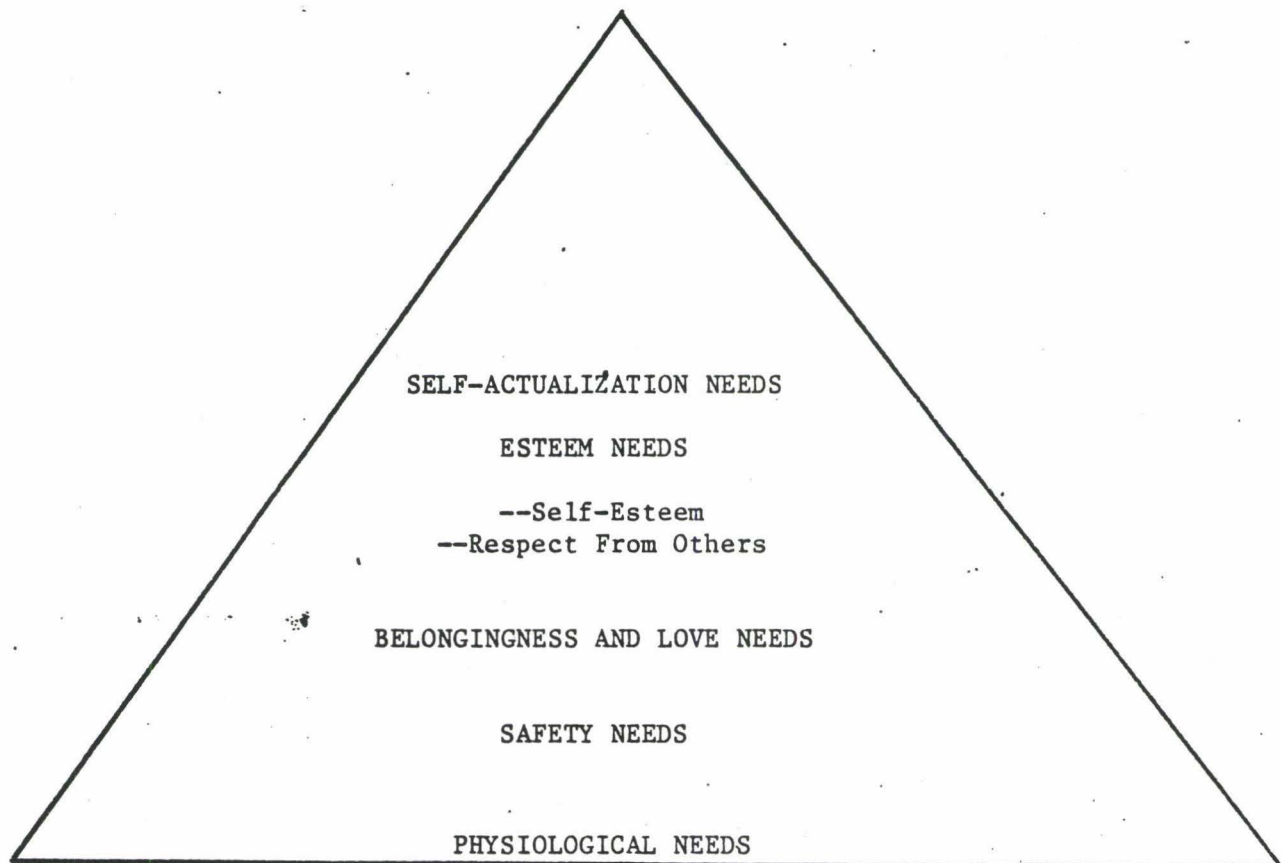
As more people take to the woods in search of spiritual renewal or just the joy of physical activity, there is a greater need for the preparation of maps and brochures that will safely allow the users to pursue their chosen form of recreation. For many years the USGS Quadrangle maps satisfied the need for trail information. At times this information was supplemental with personal trail knowledge by the Agency employee. This may have been fine for the pathfinders of yesteryear, but is insufficient for today's urban dweller venturing forth for the first time. Dr. Thomas Heberlien in his presentation September 24, 1979, to Professional Short Course students indicated that Forest visitors generally achieve pleasant experiences unless their experience is mismatched with their expectations; such as expecting a primitive experience, but receiving one that is highly regulated. Brochures indicating what is to be expected will alleviate the possibility of mismatching experiences.

The George Washington and Jefferson National Forests are presently studying the feasibility of a 365-mile bikeway traversing the western mountains of Virginia. Since long distance bicycling in the mountains is a relatively new idea, a brochure will be developed to assist users in the planning of their adventure.

This paper applies Abraham Maslow's concepts of hierarchies of human needs and especially the opportunity for self-actualization to the final brochure prepared for potential bikeway users. Maslow's work along with the work of many others developed the following triangle of human needs with five definite levels.



## ABRAHAM MASLOW'S HIERARCHIES OF HUMAN NEEDS



THE EXTERNAL ENVIRONMENT  
PRECONDITIONS FOR NEED SATISFACTION  
FREEDOM, JUSTICE, ORDERLINESS  
CHALLENGE (SIMULATION)

When pressed for a definition of self-actualization, the highest need, Dr. Maslow said, "What a man can be, he must be." This tendency might be phrased as a desire to become more and more of what one is, to become everything that one is capable of becoming. Maslow said, "if one need is satisfied, then another emerges." He further went on to say, "This statement might give the false impression that a need must be satisfied 100 percent before the next need emerges. In actual fact, most normal members of our society are partially satisfied in all their basic needs at the same time. A more realistic description of the hierarchy would be in terms of decreasing percentages of satisfaction as we go up the hierarchy of prepotency. For example, if arbitrary figures are assigned for sake of illustration it is as if the average citizen is satisfied perhaps 85 percent in his physiological needs, 70 percent, in his safety needs, 50 percent in his love needs, 40 percent in his self-esteem needs and 10 percent in his self-actualization needs."



The direction this paper now takes is to discuss each of the human needs as they are related to the proposed bikeway, or any other trail, with emphasis being placed on opportunities for self-actualization. Again, the human needs are as follows:

- Physiological needs
- Safety needs
- Belongingness and love needs
- Esteem needs
- Self-actualization needs

The following narrative for the Bikeway Brochure is intended as an example of the methods used in applying Abraham Maslow's Hierarchies of Human Needs. The same approach may be taken during the preparation of any brochures dealing with human activity.

A good introduction is essential to orientate the visitor to the expected environment. A description of general location, terrain, weather conditions, etc., allows for better trip planning.

The George Washington and Jefferson Bikeway traverses through parts of the Alleghany and Shenandoah Mountains which are characterized by long, ridge-like mountains and relatively narrow valleys that trend in a northeast-southwesterly direction. Bikeway elevations range from a minimum of 950 feet on the James River to a maximum of 4,400 feet at Flag Pole Knob.

The climate of Virginia is variable, though the variations are not extreme or abrupt. It is not uncommon during the summer for Forest temperatures to be 12-20° lower than in the valley below. Evening mountain breezes bring even more acceptable temperatures for the visitor.

The following paragraph addresses the physiological need, which is the need for food and shelter. This is the most basic of human needs and should be addressed in some detail.

Plan your trip before starting out, study area maps and learn the terrain. Be familiar with all options--time, alternate routes, weather. Remember during the fall and spring daylight hours are shorter.

Carry extra warm clothing, such as windbreakers, wool jackets, hats and gloves. Bring high-energy foods like hard candies, chocolate or dried fruits. Be sure you have enough liquids. Don't overload your bicycle, but be prepared for emergencies. Travel with a first-aid kit, map, compass, and whistle. Wear blaze orange during hunting season.

When camping overnight, stop at designated areas where toilets, water and fire rings are provided. Not all water sources are considered safe so boil or treat water before drinking.

The following paragraph directs attention to the safety needs of the bikeway user.

The bikeway has been designed and constructed with the safety of the user in mind. Bituminous paving used in trail construction allows a smooth and safe ride. Widths vary from 6-8 feet for ease of passing, curves are banked and where possible grades are held to a minimum to control downhill speeds. Should your bicycle be damaged, repair shops in nearby towns are indicated on the route map.

Belongingness and love needs are addressed next.

The bikeway is designed for family enjoyment. Youngsters, accompanied by their parents, may safely participate, in this outing whether for one day or a full week. Family groups traveling together will find the evening hours especially rewarding when they all crowd around the campfire, singing songs, and roasting marshmallows.

The need for esteem is generally overlooked in most activities but is quite important to the individual. This is apparent at most scout gatherings where leaders and scouts display achievement patches on their jackets.

Bikeway patches are available to individuals completing the total trail at nominal cost from Forest Service employees at the Mount Rogers and Trout Pond ending points, or upon request from Supervisor's Office, George Washington or Jefferson National Forests. Patches are dated by years so that individuals may acquire and display more than one bikeway patch.

Self-actualization is the last need to be discussed. This paragraph encourages the user to use his creativity thereby achieving the ultimate in satisfying experiences.

The bikeway route travels from the high Virginia mountains to the rural valley setting offering different panoramic views to the rider. Photographing meadow wildflowers, breathtaking vistas, or a serene farmstead is but one of the opportunities for individual creativity. The bikeway may be traveled by groups or individuals but certain sections offer opportunities for peaceful solitude. Individuals may achieve pleasure and even ecstasy in the beautiful sunsets, the breathtaking loveliness of a field full of wildflowers, and the total spectrum of nature and its wonders.

Using Maslow's principles brochures and other handout material can be tailored to specific areas. Land and Resource Management Planning dictates each Forest to map Federal land based on Recreation Opportunity Spectrum Guidelines. The total spectrum, from Urban to Primitive, gives the employee a basis for developing brochures. At the primitive end of the spectrum, a greater emphasis would be placed on discussing the physiological and safety needs of the visitor. At the Urban and Rural end of the spectrum these needs would be lessened, because of urban familiarity, and the other human needs would become more important.



Once the hierarchy of human needs has been considered other information, usually general and educational in nature may be included in the brochure. A detailed history description is especially important. Expound how the area had been managed in the early days; farming, logging, plantations, etc. Especially interesting are battle sites. Indian attacks, Revolutionary and Civil War Battles are of interest to visitors of all ages.

A section concerning flora and fauna is desirable. This information prepares visitors as to what to expect while in the wild. Trees, flowers and animals create universal interest.

A description of Agency policy and management practices is also desirable. The brochure is an excellent place to expound on Agency missions, and merits of, for example, varying timber harvest methods and benefits to other resources.

For the most part forest visitors are law-abiding citizens. They have a desire to protect the environment and abide by rules and regulations. Rules and regulations should not appear as a list of don'ts, but worked into the narrative in a positive way. For example:

--If you build a campfire, keep it small. Shelter your fire from high winds; keep it away from logs, brush and tree trunks. Make sure your fire is dead out before leaving.

#### Conclusions

Consciously applying Maslow's Hierarchies of Human Needs is a major step forward in tailoring brochures and handout material to fulfill the informational needs of the visitor. Although examples in this paper deal specifically with the Washington - Jefferson Bikeway, the principles may be applied to all informational material prepared.

#### Literature Cited

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